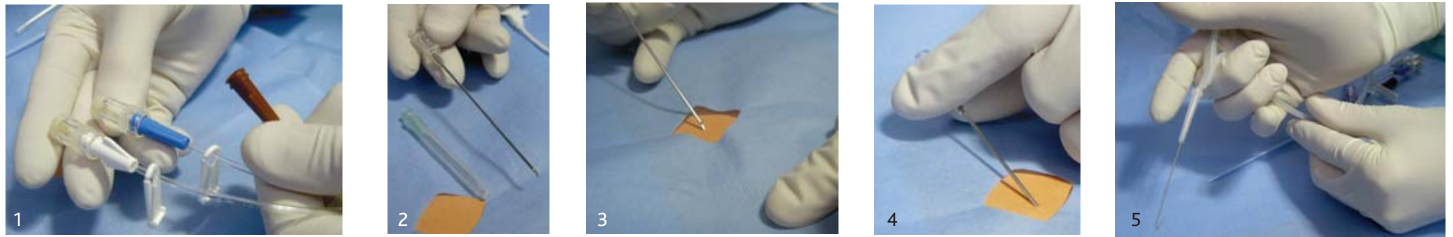
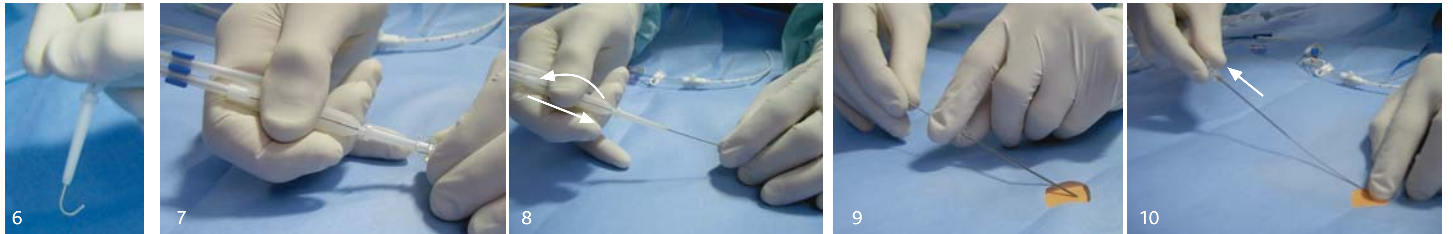
Placing Jugular Catheters (by Seldinger technique)

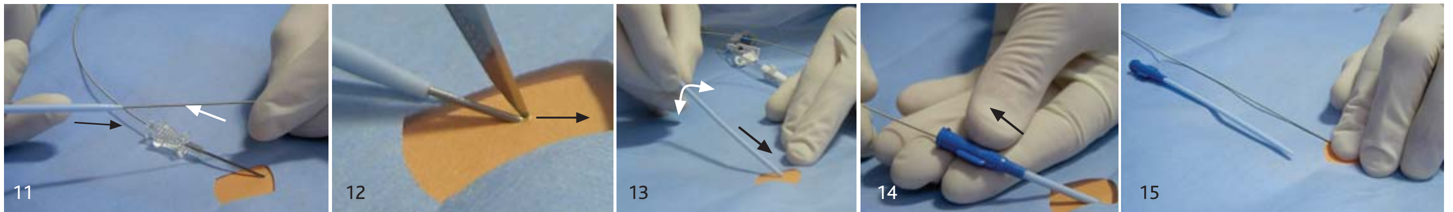
A guide to the placement of jugular catheters by the Seldinger technique. Do not hesitate to contact us for further details before use if required.



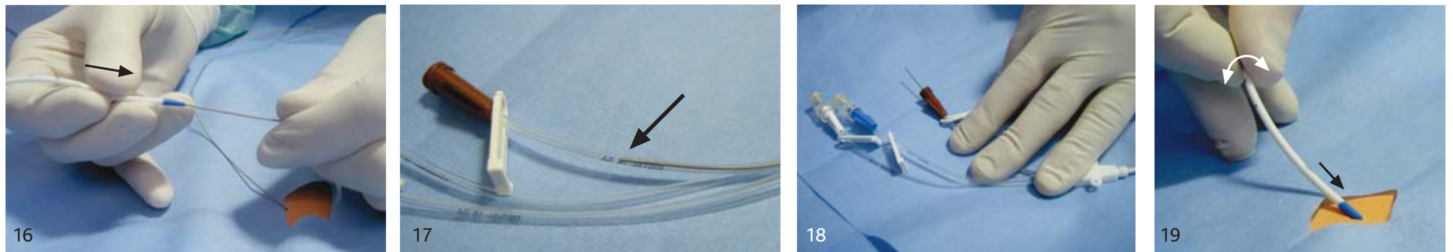
The desired access point should be clipped, scrubbed and draped (2). The surgeon should also be aseptically prepared. Before starting, identify the DISTAL (Brown) channel on the catheter and ensure the injection cap is ***removed (1)***. Using the special Seldinger needle only, locate the vein (3) and adequately advance needle in direction of blood flow (4). In a clinical patient, you will experience a moderate blood flow - do ***NOT*** panic! You are now ready to place the guide wire (5).



Take the guide wire holder in one hand (6). Use thumb to retract the wire J-tip back into the plastic cone. Push cone firmly into luer of Seldinger needle (7). Use thumb over wire on outer cut-out area (8) to advance the guide wire down the pre-determined length for that patient. An ECG will show if you have advanced too far (into heart chambers. At this point, hold the guide wire steady and remove the Seldinger needle (9). Light pressure over the puncture site minimises seepage (10).

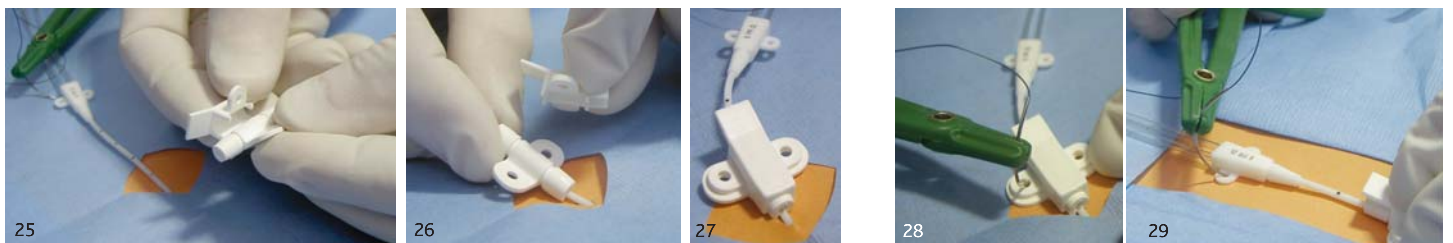


Feed the free end of the guide wie into the tip of the dilator (11). Advance the dilator over the guide wire down to the skin and advance through gently using a twisting motion. If the skin is tough, use the scalpel to nick the skin over the wire (12). Do NOT do this over the dilator itself. Pass dilator into vein (13 & 14). Holding guide wire still, remove the dilator gently (14) leaving guide wire in vein and applying mild pressure over venous site.



Now feed the free end of the guide wie into the tip of the catheter (16). Holding the guide wire still, advance the catheter down over the wire. The wire appears in the tubing of the distal (BROWN) channel (17) and then exits that channel (18). Advance catheter tip through the dilated skin entry; a rotating action may ease passage of tip through tissue (19). Do NOT force the catheter; if resistance is encountered, repeat the dilation procedure (11-15).

Advance catheter until either the hub is at the skin site, or the pre-determined depth is reached (20). Withdraw the guide wire whilst holding the catheter in place (21). Once removed, cap the distal channel (22) with your preferred cap and aspirate & flush with heparinised saline. Suture in place (23 & 24). If the entire catheter length is not implanted, use the clamp provided to anchor proximal tubing. Do NOT suture with catheter wall/sheath exposed, as shown in picture 24!



To do this, separate the hard plastic backing from the soft rubber catheter grip (25). Ease the grip over the catheter at the required position and then re-attach the plastic cover(26) so the grip is held firmly (27). Suture the clamp eyelets first (28) before suturing the catheter hub (29) to minimise risk of displacement.

The catheter should now be securely fastened to the patient. The lumens should already have been flushed with heparinised saline. Take care to adequately protect both the catheter site and the lumen tubing from damage - a neck dressing is often appropriate. Remeber to check the catheter site for complications, and flush the catheter lumens on a regular basis; this should help ensure the longest placement duration, least complications and easiest access for you